

IN THE CLAIMS

Please amend the claims as follows:

1-20. (CANCELED)

21. (CURRENTLY AMENDED) A process for converting bulk nickel metal to nickel sulfate comprising the steps of:

1) providing a bulk nickel metal to a system having at least one enclosed reactor column containing a bulk nickel metal;

2) supplying sulfuric acid at a first pressure to the system ~~into each of said at least one enclosed reactor column~~, said first pressure exceeding ambient pressure, said sulfuric acid having a concentration sufficient to dissolve said bulk nickel metal;

3) supplying an oxygen containing gas at a second pressure to the system ~~into each of said at least one enclosed reactor column~~, said second pressure exceeding said first pressure, said supplying oxygen step producing a nickel sulfate solution; and

4) ~~collecting said nickel sulfate solution in a collection receptacle.~~

22. (PREVIOUSLY PRESENTED) The process according to claim 21, wherein said step of supplying sulfuric acid comprises pumping sulfuric acid to each of said at least one reactor column from a sulfuric acid container.

23. (PREVIOUSLY PRESENTED) The process according to claim 22, wherein said step of supplying sulfuric acid comprises pumping sulfuric acid to a first reactor column from a sulfuric acid container, said first reactor column connected in series to at least one further reactor column comprising at least a last reactor column, said last reactor column providing the said nickel sulfate solution to said sulfuric acid container for said step of collecting said nickel sulfate solution.

24. (PREVIOUSLY PRESENTED) The process according to claim 21, wherein said step of supplying sulfuric acid comprises adding sulfuric acid continuously to each of said at least one enclosed reactor column to maintain stoichiometry within each of said at least one enclosed reactor column until all of said nickel metal is dissolved.

25. (PREVIOUSLY PRESENTED) The process according to claim 21, wherein said first pressure is in a range of about 10 psi to about 149 psi.

26. (PREVIOUSLY PRESENTED) The process according to claim 21, wherein said second pressure is in a range of about 11 to about 150 psi.

27. (PREVIOUSLY PRESENTED) The process according to claim 21, wherein said second pressure is at least 2 psi greater than said first pressure.

28. (PREVIOUSLY PRESENTED) The process according to claim 43, wherein said step of separating the nickel sulfate from said nickel sulfate solution comprises heating

said nickel sulfate solution until the nickel sulfate precipitates out of said nickel sulfate solution.

29. (PREVIOUSLY PRESENTED) The process according to claim 21, wherein said at least one reactor column comprises four reactor columns, said four reactor columns being connected in series between a pump and a sulfuric acid container.

30. (PREVIOUSLY PRESENTED) The process according to claim 29, wherein said step of supplying oxygen containing gas comprises supplying oxygen containing gas between said pump and the first of said four reactor columns.

31. (PREVIOUSLY PRESENTED) The process according to claim 21, wherein said at least one reactor column comprises one reactor column, said one reactor column being connected between a pump and a sulfuric acid container.

32. (PREVIOUSLY PRESENTED) The process according to claim 31, wherein said step of supplying said oxygen containing gas comprises supplying said oxygen containing gas between said pump and said one reactor column.

33. (PREVIOUSLY PRESENTED) The process according to claim 21, wherein said sulfuric acid has a concentration of about 1% to about 30%.

34. (PREVIOUSLY PRESENTED) The process according to claim 21, wherein said step of collecting said nickel sulfate solution comprises depositing nickel sulfate solution into a sulfuric acid container.

35. (PREVIOUSLY PRESENTED) The process according to claim 21, wherein said at least one enclosed reactor column is heated during said step of supplying said sulfuric acid and said step of supplying said oxygen containing gas.

36. (PREVIOUSLY PRESENTED) The process according to claim 35, wherein said at least one enclosed reactor column is heated to a temperature in the range of 90.degree. C. to 95.degree. C.

37. (PREVIOUSLY PRESENTED) The process according to claim 29, wherein said of supplying oxygen containing gas comprises supplying oxygen containing gas between the last of said four reactor columns and the sulfuric acid container.

38. (PREVIOUSLY PRESENTED) The process according to 31, wherein said step of supplying oxygen containing gas comprises supplying oxygen containing gas between said one reactor and the sulfuric acid container.

39. (CANCELED)

40. (PREVIOUSLY PRESENTED) The process according to 21, wherein said oxygen containing gas comprises oxygen gas, air or a mixture thereof.
41. (PREVIOUSLY PRESENTED) The process according to claim 21, wherein said bulk nickel metal comprises a plurality of bulk nickel particles having an average size of at least 0.1 mm.
42. (PREVIOUSLY PRESENTED) The process according to claim 21, wherein said nickel sulfate solution contains a concentration of nickel metal of about 10 weight percent.
43. (PREVIOUSLY PRESENTED) The process according to claim 21, further comprising the step of: 5) separating the nickel sulfate from said nickel sulfate solution.
44. (CURRENTLY AMENDED) A process for making nickel hydroxide comprising the steps of claim 21-46 and further including the step of: 5) converting said nickel sulfate solution to nickel hydroxide.
45. (PREVIOUSLY PRESENTED) The process according to claim 21, wherein the oxygen containing gas is supplied after the sulfuric acid begins reacting the said bulk nickel metal.

46. (NEW) The process according to claim 21, further comprising the step of 4) collecting said nickel sulfate solution in a collection receptacle.

47. (NEW) A process for converting bulk nickel metal to nickel sulfate comprising the steps of:

1) providing a bulk nickel metal to a system having at least one enclosed reactor column;

2) supplying sulfuric acid at a first pressure to the system, said first pressure exceeding ambient pressure, said sulfuric acid having a concentration sufficient to dissolve said bulk nickel metal, said sulfuric acid being continuously recycled through the system;

3) supplying an oxygen containing gas at a second pressure the system, said second pressure exceeding said first pressure, said supplying oxygen step producing a nickel sulfate solution, ; and

4) collecting said nickel sulfate solution in a collection receptacle.